

Subtractive Stud Formation for MRAM Manufacturing

ABSTRACT OF THE DISCLOSURE

A method of fabricating a magnetic memory cell and an MRAM structure. A thin conductive hard mask is used to pattern a magnetic stack material layer. Conductive studs are fully landed on the top surface of the thin conductive hard mask, preventing the magnetic memory cells from being exposed subsequent etchant chemistries. The conductive studs provide a large process window for the upper level wiring trench formation, and also provide etch selectivity during the patterning of the upper level wiring.